

Standards for the Digital Submittal of Maps and Plans

1.0 Introduction	2
2.0 Format of Data for Digital Submittal	2
3.0 Basis of Bearings and Coordinate Reference	3
4.0 Data Layering Requirements	3
Table 4.1 Final Maps, Parcel Maps	4
Table 4.2 Improvement Plans	5
Table 4.3 Grading Plans	7
5.0 Acceptable Media	9
6.0 File Naming Conventions	9

City of Carlsbad

1.0 Introduction

The City of Carlsbad maintains a Geographic Information System (GIS) for use by all City Departments. Major components of the GIS are parcels and public works facilities. To improve the efficiency of data collection and use in city operations such as development processing services, public works maintenance and operations, public safety activities (Police/Fire) and habitat protection, the City of Carlsbad requires the submission of digital copies along with the required number of hardcopies for the submittal of all Final Maps, Grading Plans, and Improvement Plans. These requirements do not affect in any way existing requirements of other departments regarding map/plan processing. See Section 4 for details of data file content and organization.

Exceptions from these requirements may be made with the express permission of the Deputy City Engineer for Development Services.

For further information or clarification of this specification, contact:

Engineering Department
City of Carlsbad
1635 Faraday Avenue
Carlsbad CA 92008
(760) 602-2760 (Engineering)

2.0 Format of Data for Digital Submittal

The acceptable formats for digital submittal of the data are:

AutoCAD Release 2012 or earlier (Autodesk) .dwg or .dxf format

City of Carlsbad

3.0 Basis of Bearings and Coordinate Reference

The basis of bearings and all coordinates of data submitted to the City must be in reference to the California Coordinate System - 1983, Zone VI, 1991.35 Epoch, North American Datum of 1983 (NAD83) based on ties to the **City of Carlsbad Survey Control Network** monuments as published on **Record of Survey Map No. 17271**, filed in the office of the San Diego County Recorder on February 8, 2002. The coordinate ties in the digital submission must meet third order accuracy from the control monuments to the project boundary. The project boundary will be located in the California Coordinate System at a common tie point. All other coordinates and line work will be scaled to ground distances and be within 0.5 feet of the true California Coordinate System values. For vertical control, the NGVD 29 datum is still in effect.

NOTE: Use the “Xref” AutoCAD command with “Carlsbad_NAD83R14.dwg” to verify project site location (insert point (0,0,0).)

4.0 Data Layering Requirements

Final Maps, Parcel Maps - will consist of:

- file(s) of the entire map submittal area;
- layers description (digital file/ hard copy)

Improvement Plans - will consist of:

- file(s) of the entire plan submittal area;
- layers description (digital file/ hard copy)

Grading Plans - will consist of:

- file(s) of the entire plan submittal area;
- layers description (digital file/ hard copy)

Note:

The model space of the submitted drawings should contain the entire project (showing property lines, improvements, etc.) and it should not be divided into sheets (used for plotting purposes.)

The City of Carlsbad Standard layers are as described in Tables 4.1 (Final Maps, Parcel Maps), 4.2 (Improvement Plans), and 4.3 (Grading Plans).

Digital submittals are to follow the City of Carlsbad layer format, or be accompanied by a digital file or hardcopy sheet describing layer names and symbol descriptions.

City of Carlsbad

Table 4.1 Final Maps, Parcel Maps

Layer Name	Layer Contents
ACREAGE	net acreage text
BASE	north arrow, location map, etc.
COORD	coordinate values & tic marks
COV	cover sheet information
EASE	public/private easement lines
FLOOD	100 year flood lines and text
HATCH	hatching & shading
LOTS	lot lines, other property lines, and associated text
MON	monumentation markers and associated text
POS	procedure of survey lines and associated text
ROW	right-of-way easement lines and associated text
STCL	street centerline lines and associated text
STREAM	streams
STROW	street right-of-way lines and associated text
THALWEG	watercourse thalwegs

City of Carlsbad

Table 4.2 Improvement Plans

Layer Name	Layer Contents
ACCESS	access covers (size, type, % grade)
APN	assessor parcel number text
BASE	north arrow, location map, etc.
COORD	coordinate values & tic marks
COV	cover sheet information
CURB	curbs, berms, sidewalks
EASE	public/private easement lines
EXGRDIDX	existing grade index contours & text
EXTGRADE	existing grade contours and text
FINGRADE	finished grade contours and text
FINGRDIDX	finish grade index contours & text
FLOOD	100 year flood lines and associated text
FLOW	swales, direction of flow
FTPRINT	footprints of buildings
GRID	grid & grid numerical values for street & utility profiles
HATCH	hatching & shading
INOUT	inlets/outlets
IRRCOND	irrigation conduit
IRRCONTR	irrigation controllers
IRRPIPE	irrigation pipe
LANDSCPLT	landscape planting
LANDSCTXT	landscape text
LOTS	lot lines, other property lines, and associated text
MEDIAN	medians
MON	monumentation markers and associated text
PERCENT	percentages
POS	procedure of survey text and associated text
PUBELECOH	public utilities - electrical: overhead
PUBELECUG	public utilities - electrical: underground
PUBGAS	public utilities - gas distribution
PUBHYDR	public utilities - fire hydrants
PUBTELE	public utilities - telephone boxes
PUBTV	public utilities - cable TV
PUBWATER	public utilities - water supply
RAMP	ramps
RECWPROF	reclaimed water profile
ROW	right-of-way easement lines
SEWERSYS	sewer main and associated text

City of Carlsbad

SEWPROF	sewer profile
SPOTELEV	spot elevations markers and text
STCL	street centerline lines and associated text
STLIGHT	electroliers
STLTCOND	street lighting conduits & junction boxes
STORMDRN	culvert and storm drain profiles and associated text
STPROF	street profile
STREAM	streams
STRMPROF	storm drain profile
STROW	street right of way lines and associated text
STSIGN	street name signs
STSTRIPE	traffic striping
THALWEG	watercourse thalwegs
TREE	trees (4" diameter or greater)
TSIGCOND	traffic signal conduit
TSIGN	regulatory & advisory signs
TSIGNAL	traffic signals
TSIGNAL	traffic signals and associated text
WALKS	footprints of walks
WATPROF	water line profile
XTREE	trees to be removed

City of Carlsbad

Table 4.3 Grading Plans

Layer Name	Layer Contents
ACCESS	access covers (size, type, % grade)
APN	assessor parcel number text
BASE	north arrow, location map, etc.
COORD	coordinate values & tic marks
COV	cover sheet information
CURB	curbs, berms, sidewalks
EASE	public/private easement lines
EXGRDIDX	existing grade index contours & text
EXTGRADE	existing grade contours and text
FINGRADE	finished grade contours and text
FINGRDIDX	finish grade index contours & text
FLOOD	100 year flood lines and text
FLOW	swales, direction of flow
FTPRINT	footprints of buildings
HATCH	hatching & shading
INOUT	inlets/outlets
LANDSCPLT	landscape planting
LANDSCTXT	landscape text
LOTS	lot lines, other property lines, and associated text
MEDIAN	medians
PERCENT	percentages
POS	procedure of survey text and associated text
PUBGAS	public utilities - gas distribution
PUBHYDR	public utilities - fire hydrants
PUBTELE	public utilities - telephone boxes
PUBWATER	public utilities - water supply
RAMP	ramps
ROW	right-of-way easement lines and associated text
SEWERSYS	sewer main and associated text
SPOTELEV	spot elevations markers and text
STCL	street centerline lines and associated text
STORMDRN	culvert and storm drain profiles and associated text
STREAM	streams
STROW	street right-of-way lines and associated text
THALWEG	watercourse thalwegs
TREE	trees (4" diameter or greater)
TSIGNAL	traffic signals

City of Carlsbad

TSIGNAL	traffic signals and associated text
WALKS	footprints of walks
XTREE	trees to be removed

City of Carlsbad

5.0 Acceptable Media

The City will accept submissions of the required digital files on the following media:

PC-formatted Compact Disk (CD)
PC-formatted Digital Versatile Disk (DVD)

The submitter will be responsible for archival of the digital data until final acceptance.
If possible do not archive (compress) the files.

Please include all the necessary files on your submittal disk (i.e. XREF-ed files, fonts). (The easiest way to accomplish this is by using the *Pack'n Go* or E-Transmit feature from AutoCAD).

All media will be submitted with labels indicating the following information:

Project Name/Number
Date
Company
Contact Name/Telephone Number/Email
File Names (see below for file naming conventions)

6.0 File Naming Conventions

The files will be named according to the plan name with the extension .DWG or .DXF for CAD-type files.

Examples:

Carlsbad Tract Map No. 98-93	CT9893.dwg
Minor Subdivision 89-01	MS8901.dwg
Improvement Plan 360-3B	I360-3B.dwg
Grading Plan 360-3A	G360-3A.dwg